



DIMENSIONS 2018

Forensic Sciences Year Book

Faculty of Sciences, University of Windsor

**CAUTION...YOU HAVE ENTERED THE CRIME SCENE! AS A
FORENSIC SCIENTIST IT IS YOUR DUTY TO FIND ALL PHYSICAL
EVIDENCES.**

Credits: Munira Jamali and Lara Jamaledine

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WELCOME MESSAGE

Forensic Sciences, University of Windsor



Welcome to all current and potential students interested in pursuing a Forensic Sciences degree. We are very excited with the many new developments this academic year. The Forensic programs are adding new mock crime scene condo and investigation laboratory, Forensics Innovation Research Lab as well as Advance Forensic Sciences courses to keep up with the diversity of the Forensic Sciences fields.

The Forensic Sciences is also proud to have incorporated new technologies in the programs. These exciting resources and opportunities are available for our students for Forensic Sciences placements and research:

- Medical Design Suite for Forensic Medicine research

- Video Spectral Comparator (VSC) for high profile document analysis
- CSI-Pix Matcher for Computerized fingerprint analysis
- FARO- Reality Crime Scene Reconstruction
- FARO 3-D Laser Scanner for Crime Scene Investigation
- Speech pro Voice Analysis
- i-Motions Biometrics Research Platform

The Forensic Sciences students at University of Windsor have the privilege to use all these high- profile equipment and software to help them develop the skills for a bright successful Future career. We all are very proud to say that seven Forensic Sciences research projects were presented in the prestigious International Association of Forensic Sciences (IAFS) Conference for 2017.

The Forensic Sciences at University of Windsor continue to have a successful mentorship program with an annual Best Mentor-Mentee pair award. We received an overwhelming response from students to participate as mentors. The dedicated blackboard website helps a lot for better communication and access to uploaded resources. Monthly meetings are organized for all the members to update and guide them on various academic issues. All the members are working enthusiastically to make this program successful

We just had a very successful 5th annual conference Trends in Forensic Sciences Conference on 6th April 2018: www.uwindsor.ca/tifs. This is the only University sponsored Forensic Sciences conference in Canada. The event has become very popular over the years .

The Forensic Sciences programs at University of Windsor gives the students the option to tailor the degree as per their future goals and choose diverse careers in their own area/subject of specialization.

We all are proud with the University of Windsor, online open access Journal of Emerging Forensic Sciences Research
<http://ojs.uwindsor.ca/ojs/ledgy/index.php/JEFSR>.

- Don't forget to visit our Facebook, twitter, and Instagram pages to get regular updates

Forensics@uwindsor.ca

<https://www.facebook.com/forensicsatuniversityofwindsor>

<https://twitter.com/forensicuwindsor>

I am waiting eagerly to meet you all in person and continue working for the progress of all Forensic Sciences students

Shashi K. Jasra, M.Phil., Ph.D.
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Website: www.uwindsor.ca/forensics



Mentorship in Forensic Sciences



Website in Blackboard to communicate better



Mentor-Mentee Groups



Monthly academic meetings



Mentors are upper year Forensic students



Each Mentee has at least one Mentor



No cost to participate



Best Annual Mentor-Mentee Award

Best Mentor-Mentee Award

- Monthly Peer Logs
- Participation
- Pop Quizzes

The Best Mentor-Mentee Award Recipients for 2017-18 are:

Ophelia Wong- Mentor

Raven Bickford- Mentee



*2017 Mentorship Award Winners presenting 2018 Mentorship Award
Pictured from left: Zara Vahidy, Raven Bickford, Dr. Shashi Jasra, Aya El-Sabbagh, and
Ophelia Wong*

For more information:

Email: Dr. Shashi Jasra (sjasra@uwindSOR.ca)





Student Name: _____ Student I.D. #: _____

Bachelor of Forensic Science (Honours)

2018-19 (40 Courses)

1. Major Requirements (27 Courses)

55-140 Biological diversity	55-141 Cell biology	64-130 Physics for Life Sciences1	64-131 Physics for Life Sciences 2
59-140 General Chemistry I	59-141 General Chemistry II	62-140 Differential Calculus Or 03-62-139 Functions and Differential Calculus	65-205 Statistics for the Sciences
60-104 Computer concept for end users	66-141 Introduction to Environmental Science	46-115 Introduction to Psychology /Behavioral Science	

Forensic Sciences:

57-110 Introductory Crime scene investigation	57-201 Introduction to Forensic Sciences	57-210 Crime Scene Evidence Analysis	57-301 Laboratory in Forensic Sciences
57-302 Expert Witness Testimony in Court	57-303 Forensic Identification	57-313 Digital Forensic Photography	57-401 Practicum in Forensic Sciences
57-402 (Two Semesters) Research in Forensic Sciences	57-402 Research in Forensic Sciences	57-410 New Perspectives in Forensic Evidence Analysis	57-411 Advances in Human Identification

Any Three of the Following:

57-304 Insect Evidence	57-380 Forensic Serology and DNA Applications	57-480 Forensic Medicine: Toxins and Pathology
57-482 Bioterrorism, Food, and Environment Forensics	57-420 Special Topics in Forensic Sciences	

08-99-219

Law of Evidence in Forensics (Law)

2. Other Requirements

3. Ten additional courses from one of the three following areas of concentration: Molecular Biology/Biochemistry; or Biology; or Chemistry.

4.

5. At least six must be at the 300 level or above (55-xxx; 59-xxx; 57-xxx.) The area of concentration must be declared prior to entry of 2nd year studies.

6.

Molecular Biology/Biochemistry	Biology	Chemistry
<p><u>Required Courses</u></p> <p>55-202 Human Anatomy 55-211 Genetics 55-213 Intro Mol. Bio 59-320 Analytical Chemistry 59-321 Instrumental Analysis</p> <p><u>Additional FIVE from 55-xxx, 57-xxx, 59-xxx</u></p>	<p><u>Required Courses</u></p> <p>55-210 Ecology 55-211 Genetics 55-324 Population Ecology 55-325 Community Ecology 55-341 Evolution 55-359 Invertebrate Biology (55-213 is a prerequisite)</p> <p><u>Additional FOUR from 55-xxx, 57-xxx, 59-xxx</u></p>	<p><u>Required Courses</u></p> <p>59-240 Intro Physical Chem I 59-241 Intro Physical Chem II 59-250 Intro Inorganic Chem I 59-251 Intro Inorganic Chem II 59-320 Analytical Chemistry 59-321 Instrumental Analysis</p> <p><u>Additional FOUR from 55-xxx, 57-xxx, 59-xxx</u></p>

3. Open Options (3 courses from any area of study)

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Student Name: _____ Student I.D. #: _____

Combined B.A. in Forensics

2018-19 (40 Courses)

1. Major Requirements (20 Courses)

➤ **Faculty of Science**

55-141 Cell Biology	55-140 Biological Diversity	Any one from the following: 60-104 (Computer concepts for end users) 46-115 (Introduction to Psychology/Behavioral Sciences) 66-141 (Introduction to Environmental Sciences)
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One of the following:

Faculty of Sciences: 65-205 Stats for the Sciences	OR	Faculty of Arts, Humanities, and Social Sciences: 02-250 Basic Quantitative Methods in the Social Sciences
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➤ **Forensic Sciences**

57-110 Introductory Crime Scene investigation	57-201 Introduction to Forensic Science	57-210 Crime Scene Evidence Analysis	57-302 Expert Witness Testimony in Court	57-303 Forensic Identification
57-313 Forensic Digital Photography	57-400 Theory and Practice in Forensic Sciences	57-410 (New Perspectives in Forensic Evidence Analysis	57-411 (Advances in Human Identification)	

Any Three of the Following:

57-304 (Insect Evidence) - 03-55-210 (Ecology is prerequisite)	57-380 Forensic Serology and DNA Applications	57-420 (Special Topics in Forensic Sciences)	57-480 (Forensic Medicine: Toxins and Pathology
57-482 (Bioterrorism, Food, and Environment Forensics			

➤ **Faculty of Arts, Humanities & Social Sciences:**

48-215 Principles of Physical Anthropology	48-323 Forensic Anthropology	01-34-226 Law, Punishment, and Morality or 02-43-287 History of crime
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➤ **Faculty of Law:**

08-99-219 Forensic Evidence and the Canadian Legal System (Law)

2. Second Major and Other Requirements (20 Courses)

Second Major requirements - other subjects in Arts, Humanities, or Social Sciences:
as required by that area of study.

Other requirements: additional options (if required) to a total of forty courses.

When a requirement in the combined Forensics program is also required as part of the course requirements for the other combined major, another course must be selected and substituted into the combined Forensics course requirements with the approval of the Forensic Program Chair, Centre for Inter-Faculty Programs".

FORENSIC SCIENCES RESEARCH SHOWCASE 2017-2018

1. **McKenna Turner, Dr. Amy Durocher, Dr. Pardeep Jasra and Dr. Shashi Jasra**
Evaluation of Morphological Effects of Commercially Available Acids on the human Teeth
2. **Pardeep Jasra, Chao Ma, Umang Dalwadi, Dev Shah and Meagan Beaton**
Detection of Shoe Print Details Using the *FARO*® Freestyle^{3D} Laser Scanner
3. **Theresa Tran and Dr. Pardeep Jasra**
Degradation of fingernail composition from exposure to industrial chemicals
4. **Alicja Wyrzykowski and Dr. Shashi Jasra**
Fingerprint Analysis and Comparison of Individuals with Non-Viable Fingerprint Conditions.
5. **Paul Tucci and Dr. Ramona Maraj, Yukon Research Center**
Cross species comparison of taphonomic signatures using latent class clustering.
6. **Sara Akhdar and Dr. Shashi Jasra**
Analyzing a person's voice speaking different languages to see if those four recordings will be matched to the same person.
7. **Olivia Wuerch, Amber Fahim, Dr. Shashi Jasra and Dr. Sirinart Ananvoranich**
Creation and verification of bacterial clones using digestion enzymes
8. **Emilee Mancini, Joel Vansteensel and Dr. Shashi Jasra**
The Forensic Biometric Analysis of Changes in Heart Rate and Skin Conductance Provoked by Emotional Arousal during Initial Exposure and Subsequent Recollection of Stimuli
9. **Ivana Graic, Dr. Shashi Jasra and Dr. Pardeep Jasra**

Evaluation of techniques to visualize latent fingerprints and alteration in ridge details with time on different soft surfaces.

10. Felipe Da Silva, Dr. Shashi Jasra, Dr. Pardeep Jasar, Const. John Lasorda and Stf. Sgt. David Deluca

Analysis of Falsified Fingerprints: Can a Forgery be Distinguished?

11. Morgan Amicone and Dr. Shashi Jasra

Analyzing the Effect of Stroke on the Human Brain by Detecting Abnormalities in Computed Tomography Scans Using Medical Imaging Software In vivo

12. Amber Armstrong and Dr. Shashi Jasra

Freezing Fingerprints to determine if Secondary Iodine Fuming will aid in the Development and Collection of Fingerprints on Frozen Materials

13. Meagan Beaton and Dr. Pardeep Jasar

Determination of the Brand of Cigarettes based on Metal Contents Estimated by ICP-OES.

14. Jessie Boycott and Dr. Shashi Jasra

Differentiation Between Real and Imitation Voices Using Speech Pro SIS II Software for Voice Biometrics Analysis.

15. Lyara Kiehl, Margue Mc Gregor and Dr. Shashi Jasra

The Forensic Biometric Analysis of Changes in Facial Response Provoked by Emotional Arousal During Initial and Subsequent Exposure to Stimuli

16. Haylee Meloche and John Albanese

Examination of "Race" Determination Programs Using Measurements of Femur Bones.

17. Josilyn Busi and Dr. Shashi Jasra

Viability of latent fingerprints on common clothing materials developed using 1,2-Indanedione

18. Brandi Macdonald and Bruce Vogel, RCMP Peace River Alberta

Does Time Deteriorate Footprint Impressions

19. Mitchell Smithson and John Albanese

Stature Estimation Using Fragmented Femora

20. Munira Jamali and Dr. Shashi Jasra

Early Detection of Cerebral Berry Aneurysms using volume rendering in In vivo 5

21. Vanessa Owen and Dr. Shashi Jasra

In-vivo Medical Design Studio Technology for Clinical Application of MRI Scans of Glioblastomas (Brain cancer).

22. Ashlyn Groom and Dr. Shashi Jasra

Distinction between disguised voices using speech pro SIS-II and sound cleaner filtering analysis



Forensic Sciences Practicum Placements



Windsor Regional Hospital,
Pathology Department



Windsor Police Services, Forensic
Identification



Chatham Police Services



Toronto Police Services



RCMP



Ontario Provincial Police, Chatham



Forensic Sciences
Laboratory, University
of Windsor



Center for Forensic
Sciences, Toronto



SCENE CRIME SCENE

SCENE CRIME SCENE

5TH ANNUAL TRENDS IN
**FORENSIC
SCIENCES**
CONFERENCE

FRIDAY, APRIL 6, 2018,, UNIVERSITY OF WINDSOR

Professional
Guest Speakers

Research
Showcase

CSI-Windsor
Workshops

Mock Crime
Scene

LOTS OF PRIZES

CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



University
of Windsor



College of Forensic
Sciences

Trends in Forensic Sciences (TIFS-18) Conference

Welcome and Opening Ceremony

The opening ceremony of the conference began with Dr. Shashi Jasra – Convenor of the TIFS Conference at the University of Windsor welcoming everyone to the 5th Annual Trends in Forensic Sciences Conference. She invited Dr. Douglas Kneale, Provost and Vice President, Academic, University of Windsor up on stage for the opening ceremony. Dr. Chris Houser, Dean Faculty of Science, University of Windsor, Windsor Police Chief Al Frederick, Dr. Peter Frade of Wayne State University and Dr. Shashi Jasra were next to speak during the ceremony.

During the opening ceremony, Dr Douglas Kneale said motivating words as always and the importance of Forensics to commemorate the conference and its impact on the University of Windsor. Windsor Police Chief – Al Frederick started off the opening ceremony by saying that “The world has recognized Forensic Sciences as the key to our happiness... the key to public safety.” He emphasized the collaboration between the police agency and the academic world.

Following the Windsor Police Chief, Dr. Peter Frade stressed the proposal of the collaboration of a graduate program between Wayne State University and the University of Windsor – promising an exciting start to the day. The presentations were then underway, with a series of guest speakers introduced by Master of Ceremonies Munira Jamali and Regan Pardo.



Crowd gathered in Ambassador Auditorium at University of Windsor for 5th Annual Trends in Forensic Sciences Conference



Pictured from left: Dr. Pardeep Jasra, Provost and Vice President, Academic Dr. Douglas Kneale, Forensics Program Chair Dr. Shashi Jasra and Dean of Science Dr. Chris Houser



Provost and Vice President, Academic: Dr. Douglas Kneale during the opening ceremony



Chief of Windsor Police Al Frederick, presenting an opening

**“The world has recognized Forensic Sciences as the key to our happiness... the key to public safety.”
Windsor Police Chief – Al Frederick**

Trends in Forensic Sciences (TIFS-18) Conference

CSI-Windsor Workshop Session A 2018

Trace Evidence and Microscopy – Station Leader: Peter Truong

Speech Pro Software – Station Leader: Jessie Boycott and Sara Akhdar

Biometrics – Station Leader: Emilee Mancini

3D Footwear Impressions – Station Leader: McKenna Turner

Forensic Entomology – Station Leader: Theresa Tran and Vanessa Owen

Blood Spatter Patterns – Station Leader: Lyara Kielt and Amber Armstrong



Mr. Philip Beckman presenting FARO Reality Software

Trends in Forensic Sciences (TIFS-18) Conference

CSI-Windsor Workshop Session B 2018

Trivia Game Station – Station Leaders: Ahmed Abdallah and Aya-El-Sabbagh

Fingerprint Analysis – Station Leaders: Josilyn Busi and Amber Armstrong

Firearms and Ballistics – Station Leaders: Theresa Tran and

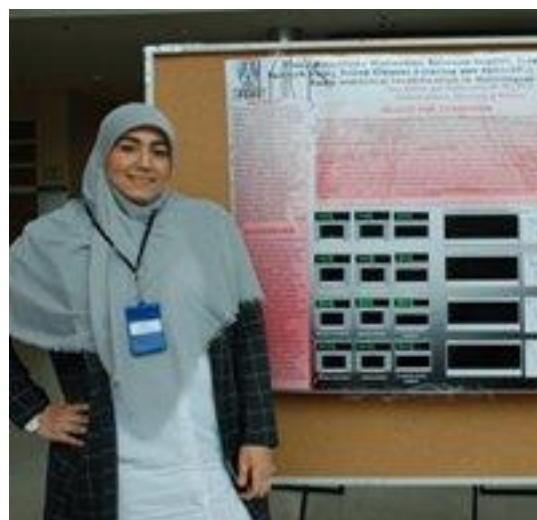
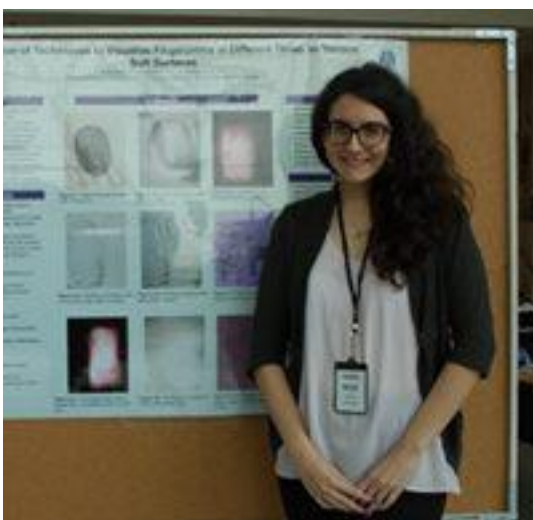
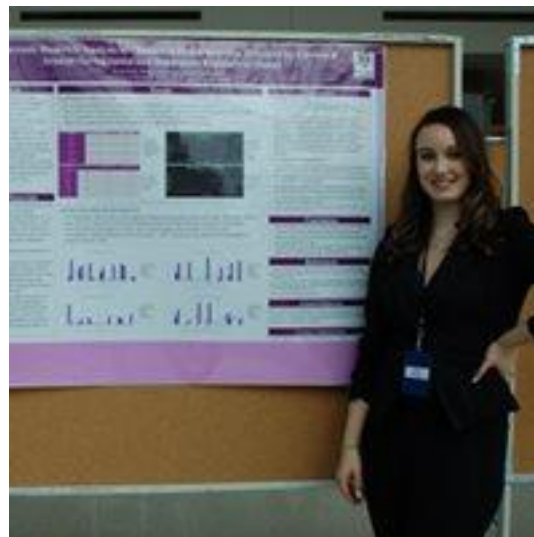
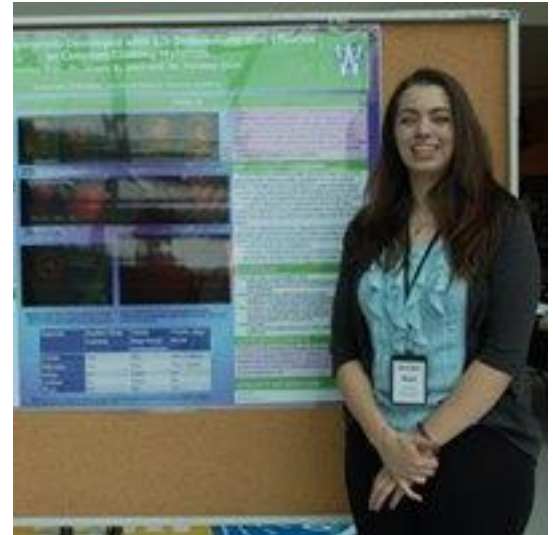
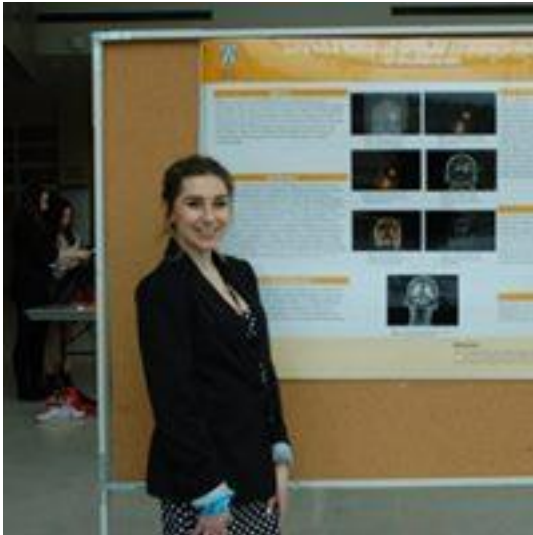
Document Examination – Station Leaders: Peter Truong and Olivia Wuerch



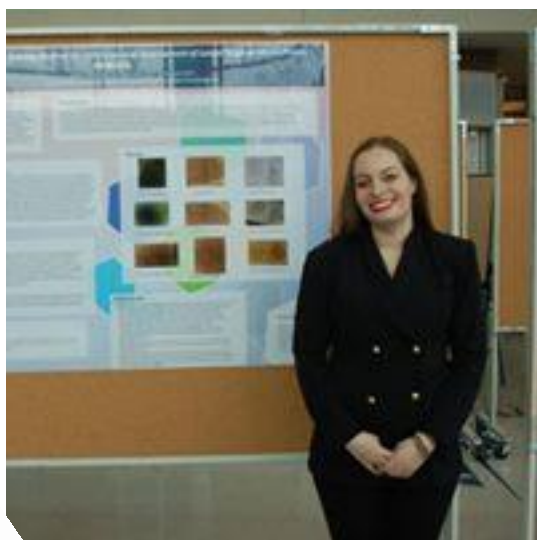
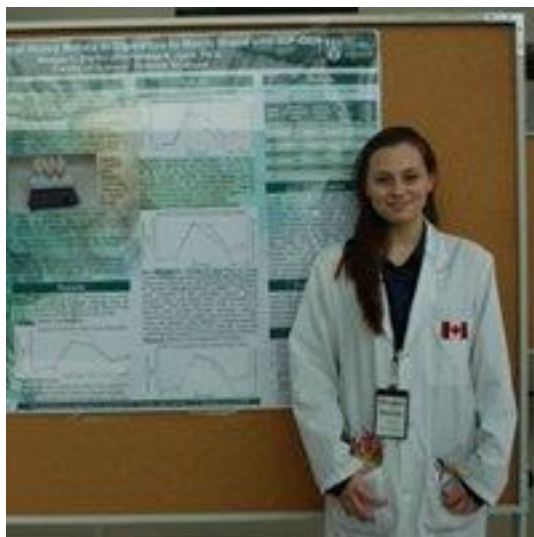
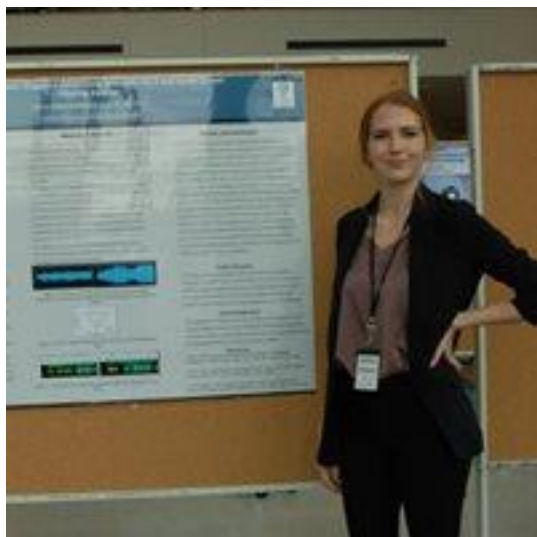
Document Analysis Station run by Peter Truong (pictured) and Olivia Wuerch

Trends in Forensic Sciences (TIFS-18) Conference

Forensic Research Showcase at TIFS-18



Forensic Research Showcase at TIFS-18



SCENE CRIME SC



TIFS-18: CSI- Windsor Workshops



TIFS-18 Photo booth!





Mock Crime Scene Investigation and Reconstruction



Trends in Forensic Sciences (TIFS-18) Conference

Acknowledgements

Conference Founders/Convenors:

Dr. Shashi Jasra
Dr. Pardeep Jasra

Conference Student Coordinators:

Regan Pardo
Munira Jamali

Guest Presenters:

Dr. Gary Berman
Philip Beckman
Brooke Fox
Emerson Camisso
Andrea Djolovic
Jaclyn Slaney

Student Presenters:

Emilee Mancini
Lyara Kielt and Margue McGregor
Olivia Wuerch
Meagan Beaton
Munira Jamali
Jessie Boycott

ALL Sponsors: www.uwindsor.ca/tifs

Crime Scene Condo and Forensics Innovation Research Lab GRAND OPENING!

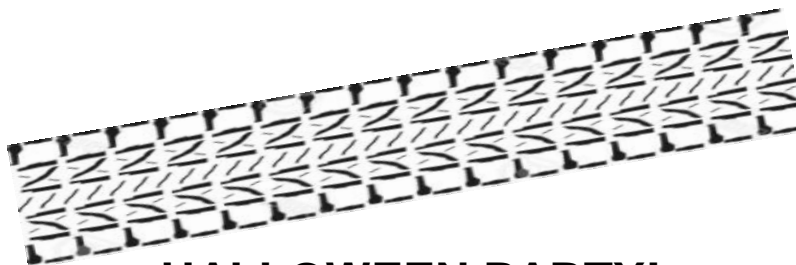


Crime Scene Condo and Forensics Innovation Research Lab GRAND OPENING!



Crime Scene Condo and Forensics Innovation Research Lab GRAND OPENING!

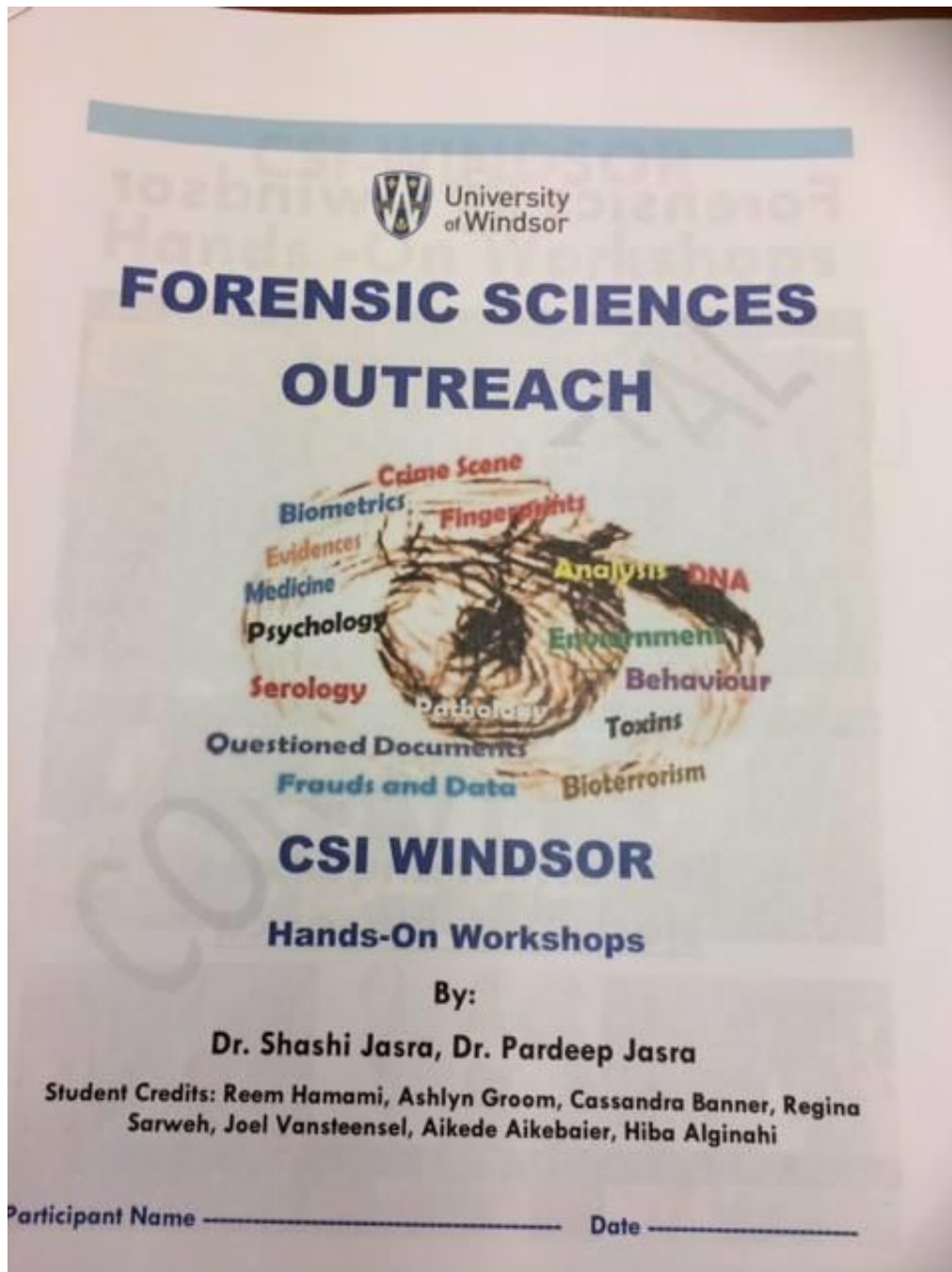




HALLOWEEN PARTY! 2017 and 2018



Forensics Outreach and Workshops



For Current and More Information visit:

- www.uwindsor.ca
- www.uwindsor.ca/tifs
- <https://www.facebook.com/forensicsatuniversityofwindsor>
- Follow us on Twitter [Forensics@uwindsor.ca](https://twitter.com/Forensics@uwindsor.ca)

